Operating Instructions

SolConeX Switch Socket

> G579/11

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2 General Information

2.1 Manufacturer

R. STAHL Schaltgeräte GmbH
Am Bahnhof 30
74638 Waldenburg
Germany

Tel: +49 7942 943-0
Fax: +49 7942 943-4333
Internet: www.stahl-ex.com

2.2 Operating Instructions Information

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Subject to alterations.

3 Intended Use

The switch socket G579/11 is electrical equipment. It connects portable and stationary electrical equipment as well as cables and circuits.

4 General Safety Instructions

The devices must be used only for the intended purpose. Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision. No changes to the device are permitted. Use the device only if it is undamaged and clean.

⚠ WARNING
Installation, maintenance, overhaul and repair may only be carried out by appropriately authorised and trained personnel.

Observe the following information during installation and operation:

- National and local safety regulations
- National and local accident prevention regulations
- National and local assembly and installation regulations
- Generally recognized technical regulations
- Safety instructions in these operating instructions
- Characteristic values and rated operating conditions on the rating and data plates
- Additional instruction plates fixed directly to the device

5 Conformity to Standards

The relevant standards are listed in the EC Declaration of Conformity.

6 Transport and Storage

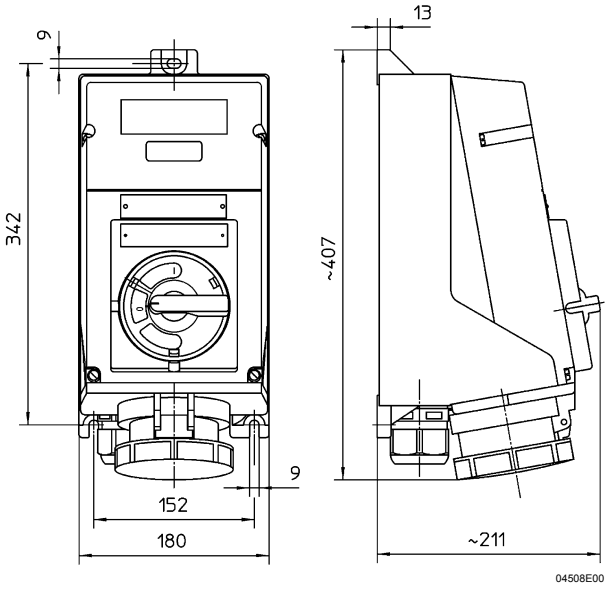
- Transport and storage are only permitted in the original packing.

7 Technical Data

Version	**G579/11 switch socket**			
Interlocked switch	3 pole switch with isolating characteristics 1 auxiliary contact (ON - delayed, OFF - advanced)			
Operating handle	can be locked in 0 and I position			
Rated operational voltage				
Main contacts	max. 690 V			
Auxiliary contacts	max. 415 V			
Rated operational current				
Main contacts	63 A ≥ 100 Hz, 50 A			
Auxiliary contacts	max. 6 A			
Rated insulation voltage	max. 750 V			
Switching capacity	acc. to IEC/EN 60947-3:			
	AC-3	DC-1	DC-2	DC-3
	690 V, 63 A	220 V, 32 A	220 V, 20 A	220 V, 10 A
	18.5 kW, 220 / 230 / 240 V			
	30 kW, 380 / 400 / 415 V			
	37 kW, 500 V			
	55 kW, 690 V			
Short-circuit protection				
Without thermal protection	max. 63 A gG			
With thermal protection	max. 80 A gG			
Connection cross-section				
Main contacts	1 x 35 mm^2, 2 x 35 mm^2 with cable lug			
Auxiliary contacts	2.5 mm^2			
Tightening torque				
Main contacts	3.5 Nm			
Cover screws	4.5 Nm			
Cable entries				
Cable gland	1 x M50 x 1.5, cable dia. range 23 ... 35 mm			
Stopping plug	1 x M25 x 1.5			
Note	For tightening torques, please refer to the operating instructions of the components.			
Service life				
Electrical	20,000 operating cycles			
Mechanical	100,000 operating cycles			
Ambient temperature	- 20 ... + 40 °C - 45... + 55 °C on request (internal lubrication with silicone grease)			
Enclosure material	polyester			
Degree of protection	IP66 acc. to IEC/EN 60529			

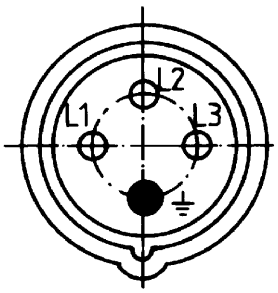
8 Dimensions

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



9 Arrangement of Contact Sleeves and Terminal Marking

View of the contact sleeves from the front. The illustrations show the 6 h position.



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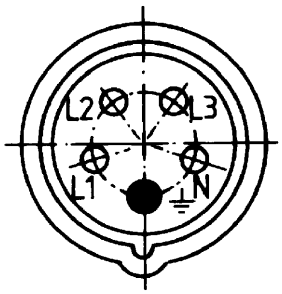
3 P + PE



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3P + N + PE

No. of poles	Frequency	Rated operational voltage	Colour code	Earth contact position
3 P + PE	50 and 60 Hz	100 ... 130 V	yellow	4 h
		200 ... 250 V	blue	9 h
		380 ... 415 V	red	6 h
	60 Hz	440 ... 460 V [1]	red	11 h
	50 and 60 Hz	480 ... 500 V	black	7 h
		600 ... 690 V	black	5 h
		after isolating transformer	[4]	12 h
	50 Hz 60 Hz	380 V [2] 440 V [2]	red	3 h
	100 ... 300 Hz	> 50 V	green	10 h [3]
	> 300 ... 500 Hz	> 50 V	green	2 h
3P + N + PE	50 and 60 Hz	57 / 100 ... 75 / 130 V	yellow	4 h
		120 / 208 ... 144 / 250 V	blue	9 h
		200 / 346 ... 240 / 415 V	red	6 h
		277 / 480 ... 288 / 500 V	black	7 h
		347 / 600 ... 400 / 690 V	black	5 h
	60 Hz	250 / 440 ... 265 / 460 V	red	11 h
	50 Hz	220 / 380 V [2]	red	3 h
	60 Hz	250 / 440 V [2]		
	100 ... 300 Hz	> 50 V	green	10 h
	> 300 ... 500 Hz	> 50 V	green	2 h
Any no. of poles	All nominal operating voltages and/or frequencies not covered by other arrangements.			1 h

Colour code and arrangement of the earth contact sleeve, relative to the polarizing slot for different voltages and frequencies according to IEC/EN 60309-2

1) Mainly for ship installations
2) Only for refrigerated containers (according to ISO standards)
3) Not standardized but recommended preferred position
4) Colour code in accordance with voltage colour code

10 Assembling and Dismantling

☞	If the equipment is exposed to the weather, it is advisable to provide a protective cover or wall.

When mounting, make sure that:

- ✗ the hinged cover is at the bottom, the connection chamber is on top
- ✗ the device is fixed in a vertical installation position to a plane wall using 3 screws (∅ 6 ... 8 mm) and suitable washers
- ✗ all screws are tightened firmly

☞	The elongated holes allow vertical and horizontal adjustment during mounting.

11 Installation

Dismounting the cover

- Loosen the cover screws.
- Take off cover along with rotary handle.

Mounting the cover

- Place the cover.
- Tighten the cover screws to the specified torque.

Cover screws	Tightening torque
M6	4.5 Nm

Special conditions

☞	The switch socket can only be switched on if a plug is inserted. Only Type G579/12 plugs from R. STAHL may be used.

- The switch socket may only be used fully closed with the connection chamber cover in place!
- Before opening the socket, disconnect it from the power supply!
- Make sure that the bayonet lock of the socket is closed when the plug is pulled out.
- Replace the switch after each short circuit in the main circuit, since with hermetically sealed equipment the state of the switching contacts cannot be checked.

Electrical connection

- The conductor must be carefully connected.
- The conductor insulation must reach to the clamping points.
- Do not damage the conductor (nicking) when removing the insulation.
- Select suitable cables to be used and appropriate way of leading them to ensure that the maximum permitted conductor temperature and the maximum permitted surface temperature is not exceeded.

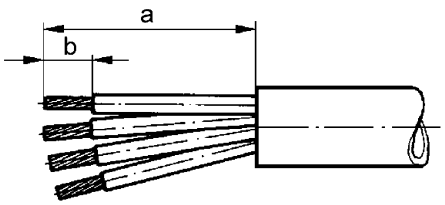
Protective conductor connection

- A protective conductor is always required.

Connection

- ▶ Open the connecting chamber cover.
- ▶ Remove the insulation from the cable ends.
- ▶ Push the cable through the cable gland into the connection chamber.
- ▶ Fit stripped cable ends to the appropriate clamping point and tighten clamp.
- ▶ When tightening clamp, ensure stripped ends of cable are fully underneath the clamp.
- ▶ Make sure that the clamping points are strain-relieved.
- ▶ Tighten the union nut of the cable gland, place the connection chamber cover carefully on top and tighten it.

☞	Metal cable glands are included in the earthing measures.



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	a [mm]	b [mm]	max. [mm²]
Main contacts	380	20	35
Auxiliary contacts	380	10	2.5

12 Putting into Service

Before putting into service

- ▶ Make sure that the components are not damaged.
- ▶ Make sure that the device has been installed correctly.
- ▶ Remove any foreign objects from the device.
- ▶ Check if cable glands and stopping plugs are tight.
- ▶ Check if screws and nuts are fastened tightly.
- ▶ Inspect the cable glands for signs of damage.
- ▶ Check the tightening torques.

☞	For unused enclosure holes use R. STAHL stopping plugs, e.g., Series 8290, for unused cable entries use R. STAHL plugs, e.g., Series 8161.

⚠ WARNING
▶ Switching on and off has to be done swiftly and completely!
▶ Avoid switching positions between 0 and I (ON and OFF)!

13 Maintenance, Overhaul and Repair

⚠ WARNING
Do not open when live!

The following details must be checked during maintenance:

- ✗ Cables are held securely in place
- ✗ Compliance with the permitted temperatures
- ✗ Damage to the enclosure and seals
- ✗ Pollution in sleeves
- ✗ Check if screws and nuts are fastened tightly

☞	Separate plugs and sockets at regular intervals to prevent contact corrosion.

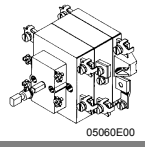
14 Cleaning

▶ The device may only be cleaned with a damp cloth.

☞	To avoid corrosion, do not allow cleaning fluids and water to penetrate the sleeve carrier.

15 Accessories and Spare Parts

⚠ WARNING
Use only original R. STAHL accessories and spare parts.

Designation	Illustration	Description	Art. no.	Weight kg
Switch insert	 05060E00	8543/2-003-205-2	148592	1.529
Plastic cable gland	05864E00	8161/5-M25-17	138520	0.020
Stopping plug	04840E00	8290/3-M25	143524	0.007

16 Disposal

The national waste disposal regulations have to be observed.

17 EC Declaration Of Conformity

EG-Konformitätserklärung
EC Declaration of Conformity
Déclaration de Conformité CE

R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany
erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt *that the product* *que le produit*	Steckvorrichtung *Plug and socket* *Prise de courant*
Typ, *type, type:*	**G579/..**

auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmt.
which is the subject of this declaration, is in conformity with the following standards or normative documents.
auquel cette déclaration se rapporte, est conforme aux normes ou aux documents normatifs suivants.

Bestimmungen der Richtlinie *Terms of the directive* *Prescription de la directive*		Nummer sowie Ausgabedatum der Norm *Number and date of issue of the standard* *Numéro ainsi que date d'émission de la norme*
2006/95/EG: *2006/95/EC:* *2006/95/CE:*	**Niederspannungsrichtlinie** *Low Voltage Directive* *Directive Basse Tension*	EN 60309-1:1999 + A1:2007 EN 60309-2:1999 + A1:2007 EN 60309-4:2007 EN 60947-3:2009 EN 60529:1991 + A1:2000
2004/108/EG: *2004/108/EC:* *2004/108/CE:*	**EMV-Richtlinie** *EMC Directive* *Directive CEM*	Nicht zutreffend nach Artikel 1, Absatz 3. *Not applicable according to article 1, paragraph 3.* *Non applicable selon l'article 1, paragraphe 3.*

Waldenburg, 13. Sept. 2011

Ort und Datum
Place and date
Lieu et date

i.V. J. Rückgauer

J.-P. Rückgauer
Leiter Entwicklung und Technik
Director Development and Technology
Directeur Développement et Technique

i.V.

Dr. S. Jung
Leiter Qualitätsmanagement
Director Quality Management.
Directeur Assurance de Qualité

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